

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1 to 25. (Canceled)

26. (Currently Amended) An immersion fluid having a transmission of 80% or greater at an operating wavelength ranging from 140 nm to 248 nm comprising:

at least one carrier medium selected from the group consisting of bicyclohexyl, glycerol, and cis-2-methylcyclohexanol; and a non-aqueous fluid and a mixture of the non-aqueous fluid and an aqueous fluid

from 10 ppm to a maximum solubility limit of at least one additive selected from an alkyl alcohol or a polymeric alcohol having one or more hydroxyl groups; an alkyl ethoxylate or a propylene oxide derivative thereof; an alkyl carboxylate or an alkyl acid ester; an alkyl amine having one or more amine groups including primary, secondary and tertiary amines or an alkyl amine ethoxylate; an acetylenic alcohol, an acetylenic diol or ethylene oxide/propylene oxide derivatives thereof; an alkyl polyglycoside; a block oligomer or a polymer of ethylene and propylene oxide; an alkyl sulfate, an alkyl ethoxylate sulfate, an alkyl sulfonate, or an alkyl ethoxylate sulfonate; an alkyl ammonium salt; a glycidal ether or a glucamine derivative with an alkyl amine, an alkyl diamine, an alkyl alcohol, or an acetylenic alcohol; an alkyl urea or a dialkyl urea; a polysiloxane, a poly(dimethyl)siloxane, a polysiloxane polyester copolymer, or derivatives thereof; a fluorinated or partially fluorinated acetylenic alcohol, diol, or derivatives thereof; a salt; and an electrolyte; wherein the salt and the electrolyte have a specific absorbance $<1 \text{ cm}^{-1}$ and a refractive index equal to or greater than water at the operating wavelength, wherein the at least one carrier medium has a refractive index greater than or equal to water at the operating wavelength and wherein if the at least one carrier medium is a mixture then the non-aqueous medium is water miscible.

27. (Canceled)

28. (Canceled)

29. (New) A method of forming a pattern on a substrate coated with a layer of photoresist, the method comprising the steps of:
- introducing a fluid between the layer of photoresist on the substrate and a lens having an operating wavelength ranging from 140 nm to 248 nm, wherein the fluid comprises:
 - at least one carrier medium selected from the group consisting of an aqueous fluid, a non-aqueous fluid, and mixtures thereof wherein the at least one carrier medium has a refractive index greater than or equal to water at the operating wavelength; and
 - about 10 ppm to a maximum solubility limit of at least one additive selected from an alkyl alcohol or a polymeric alcohol having one or more hydroxyl groups; and
 - exposing the layer of the photoresist on the substrate through the fluid to form a pattern upon the photoresist.
30. (New) The method of claim 29 wherein the at least one carrier medium is a mixture of an aqueous and a non-aqueous fluid and wherein the non-aqueous fluid is water miscible.
31. (New) The method of claim 30 wherein the non-aqueous fluid is at least one selected from methanol, ethanol, isopropyl alcohol, glycerol, ethylene glycol and derivatives thereof, polyethylene glycol and derivatives thereof, and tetrahydrofuran.
32. (New) The method of claim 29 wherein the at least one carrier medium is a mixture of a non-aqueous fluid and an aqueous fluid.
33. (New) The method of claim 32 wherein the non-aqueous fluid is at least one selected from bicyclohexyl, glycerol, and cis-2-methylcyclohexanol.
34. (New) The method of claim 33 wherein the non-aqueous fluid is bicyclohexyl.

35. (New) The method of claim 29 wherein the at least one carrier medium is a non-aqueous fluid.
36. (New) The method of claim 35 wherein the non-aqueous fluid is bicyclohexyl.
37. (New) The composition of claim 26, wherein the at least one carrier medium is bicyclohexyl.
38. (New) The composition of claim 26, wherein the at least one carrier medium is an aqueous fluid.
39. (New) The method of claim 29, wherein the at least one carrier medium is an aqueous fluid.
40. (New) A method of forming a pattern on a substrate coated with a layer of photoresist, the method comprising the steps of:
introducing a fluid between the layer of photoresist on the substrate and a lens having an operating wavelength ranging from 140 nm to 248 nm, wherein the fluid comprises:
at least one carrier medium selected from the group consisting of an aqueous fluid, a non-aqueous fluid, and mixtures thereof wherein the at least one carrier medium has a refractive index greater than or equal to water at the operating wavelength; and
exposing the layer of the photoresist on the substrate through the fluid to form a pattern upon the photoresist.
41. (New) The method of claim 40 wherein the at least one carrier medium is a mixture of an aqueous and a non-aqueous fluid and wherein the non-aqueous fluid is water miscible.
42. (New) The method of claim 41 wherein the non-aqueous fluid is at least one selected from methanol, ethanol, isopropyl alcohol, glycerol, ethylene glycol and derivatives thereof, polyethylene glycol and derivatives thereof, and tetrahydrofuran.

- 43. (New) The method of claim 40 wherein the non-aqueous fluid is at least one selected from bicyclohexyl, glycerol, and cis-2-methylcyclohexanol.
- 44. (New) The method of claim 43 wherein the non-aqueous fluid is bicyclohexyl.
- 45. (New) The method of claim 40 wherein the at least one carrier medium is a non-aqueous fluid.
- 46. (New) The method of claim 45 wherein the non-aqueous fluid is bicyclohexyl.